

CLAIMS

What is claimed is:

1. A method of controlling an external defibrillator configured to supply a defibrillation shock to a patient, comprising the steps of:

obtaining and analyzing a physical parameter from a patient, while CPR therapy is not being administered, to determine whether the patient should be treated with a defibrillation shock;

indicating that CPR therapy should be administered for a predetermined CPR therapy period, and charging an energy storage device for at least a portion of the predetermined CPR therapy period; and

discharging the energy storage device to thereby supply the defibrillation shock to the patient, after the predetermined CPR therapy period.

2. The method of Claim 1, wherein the step of obtaining and analyzing, comprises:

obtaining a viability index from the physical parameter; and

comparing the viability index to a predetermined threshold to identify whether a heart condition treatable initially with a defibrillation shock is indicated or whether a heart condition treatable initially with CPR therapy is indicated.

3. The method of Claim 2, further comprising:

comparing the viability index to a predetermined CPR therapy threshold to determine a recommended CPR therapy period.

4. The method of Claim 3, wherein the CPR therapy period is a duration of time.

5. The method of Claim 3, wherein the CPR therapy period is a number of chest compressions.

6. The method of Claim 1, wherein the step of indicating further comprises:

charging the energy storage device to a charge magnitude at a predetermined charge rate.

7. The method of Claim 6, wherein the predetermined charge rate is a value such that the energy storage device is charged to the charge magnitude in a time that is substantially equivalent to the predetermined CPR therapy period.

8. The method of Claim 1, wherein the step of indicating further comprises charging the energy storage device to a charge magnitude and maintaining the charge magnitude, for the predetermined CPR therapy period.

9. The method of Claim 1, wherein the step of indicating further comprises visually indicating that CPR therapy should be administered for a predetermined CPR therapy period.

10. The method of Claim 1, wherein the step of indicating further comprises audibly indicating that CPR therapy should be administered for a predetermined CPR therapy period.

11. The method of Claim 1, wherein the step of discharging further comprises discharging the energy storage device less than ten seconds after the predetermined CPR therapy period.

12. The method of Claim 1, wherein the predetermined CPR therapy period is a measure of time.

13. The method of Claim 1, wherein the predetermined CPR therapy period is a number of chest compressions.

14. A method of controlling an external defibrillator configured to supply a defibrillation shock to a patient, comprising the steps of:

obtaining and analyzing a physical parameter from the patient, while CPR therapy is not being administered, to determine whether the patient should be treated with a defibrillation shock;

charging an energy storage device to a charge magnitude, if the patient should be treated with a defibrillation shock;

indicating that CPR therapy should be administered for a predetermined CPR therapy period and maintaining the charge magnitude for at least a portion of the predetermined CPR therapy period; and

discharging the energy storage device to thereby supply the defibrillation shock to the patient, after the predetermined CPR therapy period.

15. The method of Claim 14, wherein the step of obtaining and analyzing, comprises:

obtaining a viability index from the physical parameter; and

comparing the viability index to a predetermined threshold to identify whether a heart condition treatable initially with a defibrillation shock is indicated or whether a heart condition treatable initially with CPR therapy is indicated.

16. The method of Claim 15, further comprising:

comparing the viability index to a predetermined CPR therapy threshold to determine a recommended CPR therapy period.

17. The method of Claim 16, wherein the CPR therapy period is a duration of time.

18. The method of Claim 16, wherein the CPR therapy period is a number of chest compressions.

19. The method of Claim 14, wherein the step of charging the energy storage device comprises:

charging the energy storage device to a predetermined charge rate.

20. The method of Claim 19, wherein the predetermined charge rate is a value such that the energy storage device is charged to the charge magnitude in a time that is substantially equivalent to the predetermined CPR therapy period.

21. The method of Claim 14, wherein the step of indicating further comprises visually indicating that CPR therapy should be administered for the predetermined CPR therapy period.

22. The method of Claim 14, wherein the step of indicating further comprises audibly indicating that CPR therapy should be administered for the predetermined CPR therapy period.

23. An external defibrillator for supplying electroshock therapy to a patient comprising:

a plurality of electrodes configured to deliver a defibrillation shock to,
and sense one or more physical parameters associated with, the
patient;

an energy storage device coupled to the plurality of electrodes and
configured to store a charge; and

a controller coupled to the plurality of electrodes and the energy storage
device, and configured to:

obtain and analyze a physical parameter from a patient, while CPR
therapy is not being administered, to determine whether the patient
should be treated with a defibrillation shock;

indicate that CPR therapy should be administered, for a predetermined
CPR therapy period and charge an energy storage device for at least a
portion of the predetermined CPR therapy period.

discharge the energy storage device to thereby supply the defibrillation
shock to the patient, after the predetermined CPR therapy period.

24. The defibrillator of Claim 23, wherein the controller is further configured to
determine the predetermined CPR therapy period based on the sensed one or more
physical parameters associated with the patient.

25. The defibrillator of Claim 24, wherein the controller is further configured to
determine a rate at which to charge the energy storage device based upon the
predetermined CPR therapy period and to charge the energy storage device at the
predetermined rate.

26. The defibrillator of Claim 23, wherein the controller is further configured to:
- obtain a viability index from the sensed one or more physical parameters; and
 - compare the viability index to a predetermined threshold to identify whether a heart condition treatable initially with a defibrillation shock is indicated or whether a heart condition treatable initially with CPR therapy is indicated.
27. The method of Claim 26, further comprising:
- compare the viability index to a predetermined CPR therapy threshold to determine a recommended CPR therapy period.
28. The method of Claim 27, wherein the CPR therapy period is a duration of time.
29. The method of Claim 27, wherein the CPR therapy period is a number of chest compressions.
30. The defibrillator of Claim 23, further comprising:
- a user interface, wherein the user interface is configured to provide visible instructions regarding CPR therapy to the user for at least the predetermined CPR therapy period.
31. The defibrillator of Claim 23, further comprising:
- a user interface, wherein the user interface is configured to provide audible instructions regarding CPR therapy to the user for at least the predetermined CPR therapy period.

32. The external defibrillator of Claim 23, wherein the controller is further configured to charge the energy storage device to a charge magnitude and maintain the charge magnitude, for a predetermined CPR therapy period.

33. The method of Claim 23, wherein the step of discharging further comprises discharging the energy storage device less than ten seconds after the predetermined CPR therapy period.

34. An external defibrillator for supplying electroshock therapy to a patient comprising:

a plurality of electrodes configured to deliver a defibrillation shock to, and sense one or more physical parameters associated with, the patient;

an energy storage device coupled to the plurality of electrodes and configured to store a charge; and

a controller coupled to the plurality of electrodes and the energy storage device, and configured to:

obtain and analyze a physical parameter from the patient, while CPR therapy is not being administered, to determine whether the patient should be treated with a defibrillation shock;

charge an energy storage device to a charge magnitude, if the patient should be treated with a defibrillation shock;

indicate that CPR therapy should be administered, for a predetermined CPR therapy period and maintain the charge magnitude for at least a portion of the predetermined CPR therapy period; and

discharge the energy storage device to thereby supply the defibrillation shock to the patient, after the predetermined CPR therapy period.

35. The defibrillator of Claim 34, wherein the controller is further configured to determine the predetermined CPR therapy period based on the sensed one or more physical parameters associated with the patient.

36. The defibrillator of Claim 35, wherein the controller is further configured to determine a rate at which to charge the energy storage device based upon the predetermined CPR therapy period and to charge the energy storage device at the predetermined rate.

37. The defibrillator of Claim 35, wherein the controller is further configured to:

obtain a viability index from the sensed one or more physical parameters; and

compare the viability index to a predetermined threshold to identify whether a heart condition treatable initially with a defibrillation shock is indicated or whether a heart condition treatable initially with CPR therapy is indicated.

38. The method of Claim 37, further comprising:

compare the viability index to a predetermined CPR therapy threshold to determine a recommended CPR therapy period.

39. The method of Claim 34, wherein the CPR therapy period is a duration of time.

40. The method of Claim 34, wherein the CPR therapy period is a number of chest compressions.

41. The defibrillator of Claim 34, further comprising:

a user interface, wherein the user interface is configured to provide audible instructions regarding CPR therapy to the user for at least the predetermined CPR therapy period.

42. The external defibrillator of Claim 34, wherein the controller is further configured to charge the energy storage device to a charge magnitude and maintain the charge magnitude, for a predetermined CPR therapy period.

43. The external defibrillator of Claim 34, wherein the controller is further configured to charge the energy storage device to a charge magnitude and maintain the charge magnitude, for a predetermined CPR therapy period.

44. The external defibrillator of Claim 34, wherein the controller is further configured to discharge the energy storage device less than ten seconds after the predetermined CPR therapy period.